

AMENDMENT (under PCT Article 34)

To: Examiner of the Patent Office

1. Identification of the International Application
PCT/JP03/16210

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4. Item to be Amended: Description and Claims

5. Contents of Amendment

- (1) "..., preferably, ... may be rounded" on page 11 line 5 has been amended to recite that, "In the grinding diamond disc, preferably, an outer peripheral edge of the protruding portion may be rounded."
- (2) Claim 1 on page 27 has been cancelled.
- (3) Claim 2 on page 27 has been cancelled.
- (4) Claim 3 on page 27 has been cancelled.
- (5) Claim 4 on page 27 to 28 has been cancelled.
- (6) Claim 5 on page 28 has been cancelled.
- (7) Claim 6 on page 28 has been amended to recite that "A grinding diamond disc comprising a plurality of diamond grains bound on a grinding portion of the disc, wherein the plurality of diamond grains are bound on the grinding portion in such a manner that a plurality of adjacent diamond grains are patterned in a predetermined configuration to form diamond group units which are arranged regularly on the grinding portion, and the diamond group units are oriented in different directions according to grinding loads of the diamond grains."

Claim 6 which depends from claim 5 has been amended to be rewritten in independent form in a simple manner. Therefore, amended claim 6 has an inventive step as described in PCT written opinion.

- (8) Claim 7 on page 28 has been amended to recite that "A grinding diamond disc comprising a plurality of diamond grains bound on a grinding portion of the disc, wherein the plurality of diamond grains are bound on the grinding portion in such a manner that a plurality of

adjacent diamond grains are patterned in a predetermined configuration to form diamond group units which are arranged regularly on the grinding portion, and wherein the grinding portion is formed by a substantially flat or round face, and the diamond group units are arranged continuously in a swirl shape from an inner diameter end side of the grinding portion to an outer diameter end side thereof.

Claim 7 which depends from claim 5 or 6 has been amended to be rewritten in independent form by combining claim 7 with claim 5 in a simple manner. Therefore, amended claim 7 has an inventive step as described in a written opinion.

(9) Claim 8 on page 28 to 29 has been amended to recite that "A grinding diamond disc comprising a plurality of diamond grains bound on a grinding portion of the disc, wherein the plurality of diamond grains are bound on the grinding portion in such a manner that a plurality of adjacent diamond grains are patterned in a predetermined configuration to form diamond group units which are arranged regularly on the grinding portion, and wherein the grinding portion is formed by a substantially flat or round face, and the diamond group units are arranged to have a gap which gradually decreases toward the outer diameter end of the grinding portion.

Claim 8 which depends from any one of claims 5 to 7 has been amended to be rewritten in independent form by combining claim 8 with claim 5 in a simple manner. Therefore, amended claim 8 has an inventive step as described in written opinion .

(10) Claim 9 on page 29 has been amended to recite that "The grinding

diamond disc according to any one of claims 6 to 8, wherein the diamond group units are each formed by three diamond grains arranged in a triangle shape.”

Claim 9 which depends from any one of claims 5 to 8 has been amended to depend from any one of claims 6 to 8.

(11) Claim 10 on page 29 has been cancelled.

(12) Claim 11 on page 29 has been amended to recite that “A grinding diamond disc comprising: a plurality of diamond grains which are bound on a region of a disc surface from an outer diameter side of a center region to a peripheral edge region, and are not bound on the center region, wherein the disc surface to which the plurality of diamond grains are bound includes a center side region and a peripheral side region located on an outer periphery of the center side region, and the diamond grains are arranged to form the character or the graphic drawn in the pointillist manner in the center side region.

Claim 11 which depends from claim 10 has been amended to be rewritten in independent form by combining claim 11 with claim 10.

(13) Claim 12 on page 29 to 30 has been cancelled.

(14) Claim 13 on page 30 has been cancelled.

(15) Claim 14 on page 30 has been cancelled.

(16) Claim 16 on page 30 to 31 has been amended to recite that “A grinding diamond disc which is circular in a front view, the grinding diamond disc having a mounting hole formed in a center region of a disc surface thereof, the grinding diamond disc comprising: a protruding portion formed at a peripheral edge of the grinding diamond disc and

configured to protrude forward and backward, wherein the diamond grains are bound on the protruding portion intermittently.

Claim 16 which depends from claim 15 has been amended to be rewritten in independent form by combining claim 16 with claim 15.